



Dear Colleague,

Turbulence in the Earth's atmosphere limits the spatial resolution that can be achieved by most ground-based telescopes. New technologies in adaptive optics, recently developed by astronomers and U S Air Force scientists have enabled the demonstration of new systems that have spatial resolutions over 20 times better than telescopes without adaptive optics. Many problems in modern planetary science and astrophysics require high resolution images of astronomical objects recorded at much greater acuity than is available using classical telescopes.

Recently the U. S. Air Force has completed commissioning the 3.67-meter diameter Advanced Electro-Optical Telescope (AEOS) on Maui Hawaii. This telescope uses an advanced adaptive optics system that enables near-diffraction limited performance. Additional features of this telescope include a unique, calibrated multi-color thermal imaging system.

Last year the NSF Division of Astronomical Sciences issued an opportunity for the science community to propose science projects on this telescope in a Program Solicitation titled: Advanced Technologies and Instrumentation (ATI): Special Competition: Astronomical Applications with the Advanced Electro-Optical System (AEOS) of the United States Air Force. This special competition enables access by the U. S. Community to the 3.67-meter Advanced Electro-Optical System (AEOS) telescope with its sophisticated adaptive optics system for astronomical research and instrument development.

Program Solicitation NSF 00-70 was first issued in fiscal year 2000 for proposals due in June 2000. It is reissued here for the fiscal year 2001, as Program Solicitation NSF 01-66, with changes to the deadline date and minor changes to the funding levels. The deadline for the submission of the proposals is 7 May 2001. We anticipate that a total of \$800,000 will be available for 4 to 6 awards, in FY2001.

Please refer to the Program Solicitation (NSF 01-66) for further details on this program for use of the AEOS system.

Sincerely,

James B. Breckinridge
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